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Addendum to the Software Users' Manual (Third Edition) for the AV-8B Map System II: Moving-Map Composer Version 3.6

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14. ABSTRACT

This report is an addendum to the third edition of the Moving-Map Composer (MMC) Users' Manual (NRL/FR/7440--00-10,041). It reflects changes implemented for the latest release of MMC version 3.6, which include:

— More efficient and automated Aircarft Optical Disk (AOD) recycling enhancements that reduce the number of superdirectories used;
— Correction of reported problems with the dataframe manager;
— Correction of reported problems with scanning paper charts.

All other MMC functionality and procedures remain unchanged. Please see Appendix A for known non-critical errors or untested functions.

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ADDENDUM TO THE SOFTWARE USERS' MANUAL (THIRD EDITION) FOR THE AV-8B MAP SYSTEM II: MOVING-MAP COMPOSER VERSION 3.6

1. INTRODUCTION

This report is an addendum to the third edition of the Moving-Map Composer (MMC) Users' Manual (NRL/FR/7440--00-10041). It reflects changes implemented for the latest release of MMC version 3.6, which include:

- More efficient and automated Aircraft Optical Disk (AOD) recycling enhancements that reduce the number of superdirectories used;

- Correction of reported problems with the dataframe manager;

- Correction of reported problems with scanning paper charts.

All other MMC functionality and procedures remain unchanged. Please see appendix A for known non-critical errors or untested functions.

2. MODIFIED SECTIONS

AOD recycling enhancements resulted in a modification to the *Tools* menu and these changes are described below. Section headings used in this addendum match their corresponding headings in the v3.5 Users Manual. Their v3.5 page numbers are also included. Table 1 shows figures that have been revised for this addendum.

Figure Number and Title	Modification	Page in v3.5 Manual
Fig. 33. AOD/MPS options menu (depends on image type set in Preferences): (a) AOD Options menu, and (b) MPS Options menu.	Both menus now contain the AOD Recycle Summary option	28
Fig. 35 AOD recycle menu with file options	The file/close option is the only option available and the window provides an AOD summary.	30
Fig. 36 AOD recycle option	This figure is obsolete and has been removed	31

Table 1. Revised figures with their corresponding page numbers in the v3.5 Users Manual

Section 3.3.6.1 AOD (or MPS) Options (v3.5 User Manual page 27)

Depending on whether the user is composing an AOD image or an MPS image (which is set in the *Preferences* Menu, Section 3.3.5.1), the first item in the *Tools* menu will be either *AOD Options* or *MPS Options*. Both have been modified to include the *AOD Recycle Summary* option. As shown in a revised Fig. 33, there are six AOD options: *Generate AOD Summary, Build AOD Image, Generate Append Summary, Copy AOD Image to WORM, AOD Recycle Summary,* and

Copy Checklist to WORM. There are now two MPS options: _Build MPS Image_ and _AOD Recycle Summary._ With AOD recycling now automated by MMC, _AOD Recycle Summary_ (which replaces the former _AOD Recycle_ option) is provided as a planning tool where the user can determine the remaining resources (e.g., remaining disk space) on an AOD prior to its use. Although this option is available in both MPS and AOD modes, it is intended for use in an AOD mode only and should not be used in MPS mode.
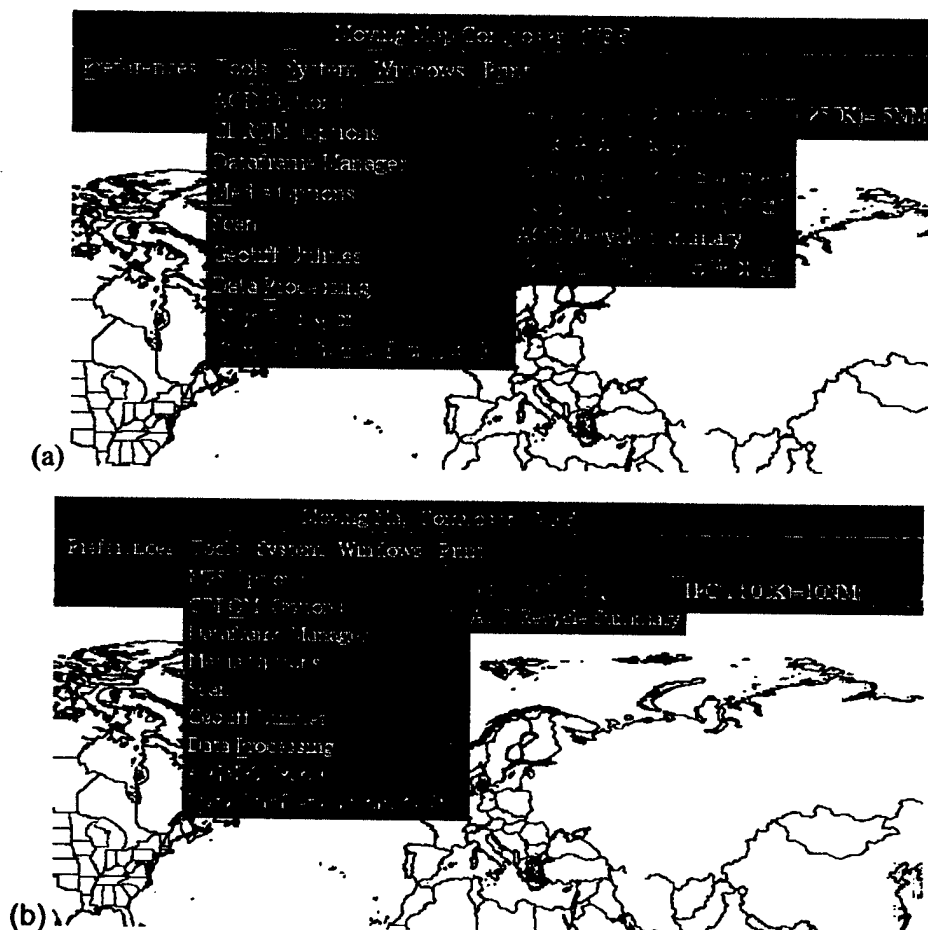

Fig. 33 — Revised AOD/MPS options menus (depends on image type set in Preferences): (a) AOD Options menu, and (b) MPS Options menu. Both menus now contain the AOD Recycle Summary option

Section 3.3.6.1.5   AOD Recycle Summary (v3.5 User Manual page 30) — This option provides a summary of relevant AOD information. Before using this option, make sure the AOD is properly installed in the DMU with the write-protect tab in the up (↑) position and the DMU turned on. When this option is selected, MMC will read the AOD and then notify the user that the last sector written is being determined (this may take a couple of minutes to accomplish). Once completed, MMC displays the amount of remaining available megabytes on the AOD, number of super directories used, and the number of remaining super directories available (revised Fig. 35). This is the only function now available in the **AOD Recycling Window** since MMC v3.6 now

optimizes AOD usage by recycling (if necessary) at the start of an AOD write to conserve the number of super directories. To return to the main **MMC Window,** click on the <u>Close</u> option that is located under the <u>File</u> menu.

Enhanced functionality of MMC v3.6 automatically provides the option to recycle an AOD when the user writes an AOD image to the disk (section 4.6). Therefore, the **AOD Recycling Window** no longer provides the option to recycle an AOD (there is no added benefit to recycling an AOD without writing additional data). This functionality allows MMC to optimize the use of a given AOD by eliminating the previous requirement to dedicate a Super Directory write only to recycling without actually writing any further data. Since an AOD is limited to only 16 Super Directories, this enhancement makes better use of the Super Directories. Now, when writing an AOD image to an AOD, MMC automatically determines whether the disk is blank or contains previously written information. If the AOD is blank, MMC will begin transfer as normal. If the AOD is not blank, MMC will determine whether enough space exists on the AOD to write the current AOD image. Furthermore, MMC will verify if the AOD image can be appended (i.e., data added) to the map data already written on the disk. Once MMC has analyzed the AOD and if there is sufficient disk space on the AOD to continue, the user is prompted to select an option for that AOD. These options may include **recycle and write, append, or cancel.**
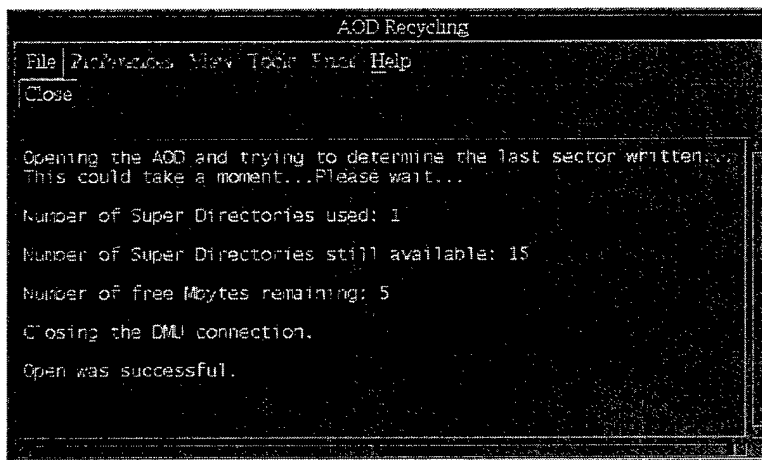

Fig. 35 — Revised AOD recycle menu for summarizing AOD information. The file/close option is the only option available when an AOD summary is provided.

3. ACKNOWLEDGEMENTS

Appendix A
Errata Sheet

1) <u>Failure to automatically adjust mode</u>. When a user sets the preference to MPS mode (section 3.3.5.1), and then opens an AOD image (section 3.3.1.4) from the DMU, MMC does not automatically adjust from MPS mode to AOD mode. In all other scenarios within MMC where an image (AOD or MPS) is opened, MMC automatically adjusts to the mode to the proper setting. However, in the specific scenario described above, a mix of AOD and MPS menu functions can be accessed. The mix of MMC menu functions for this scenario is unintentional and has not been tested. The solution to this vulnerability is to ensure that MMC is set to AOD mode when an AOD image is opened from the DMU.